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| 10/812,116      | 03/29/2004  | Russell J. Memory    | FC0072-1            | 1515             |

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EXAMINER

NOVOSAD, CHRISTOPHER J

ART UNIT PAPER NUMBER

3671

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/812,116

Applicant(s)

MEMORY, RUSSELL J.

Examiner

Christopher J. Novosad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/29/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "opposite inner end wall" on the first and second containers must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 11, the recitation "close" is indefinite since "close" is a relative term and it is unclear as to exactly what is supposed to be meant by "close".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes.

With respect to claim 1, Barnes shows an air seeder (Fig. 1) comprising:

a frame (unnumbered; Fig. 1);

a pair of ground engaging wheels (unnumbered; Fig. 1);

a first container 22 having a bottom floor (unnumbered), an outer end wall 42, an opposite inner end wall 44, and side walls 38,40 connecting the outer end wall 42 and the opposite inner end wall 44;

a second container 22 having a bottom floor (defined as being between walls 38 and 40), an outer end wall 42, an opposite inner end wall 44, and side walls 38,40 connecting the outer end wall 42 and the opposite inner end wall 44;

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a first and second metering mechanism (necessarily present on planter implement 18) for distributing particulate material ("seed" in col. 3, line 22) to the ground, the first metering mechanism necessarily being located in close proximity to the second metering mechanism;

a trough (portion of 29 under 26) incorporated into the bottom floor (defined as being between walls 38 and 40) of each of the first and second containers 22,

an auger 36 rotatably mounted in each of the troughs (portion of 29 under 26) for transporting the particulate material ("seed" in col. 3, line 22) along the corresponding bottom floor (defined as being between walls 38 and 40) to the corresponding metering mechanism (necessarily present in planter implement 18); and

a motor 48 for rotating each of said respective augers 36 to convey the particulate material ("seed" in col. 3, line 22) to the corresponding metering mechanism (necessarily present in planter implement 18), each of the motors 48 being initiated only when required to convey the particulate material ("seed" in col. 3, line 22) to the respective first and second metering mechanisms (necessarily present in planter implement 18).

As to claim 2, the floors (defined as being between walls 38 and 40) of the first and second containers 22 define a v-shaped configuration (note member 46) converging at the first and second metering mechanisms, respectively.

Regarding claim 4, the first and second containers 22 collectively define a double v-shaped configuration (note member 46) to facilitate movement of the particulate material ("seed" in col. 3, line 22) into the auger 36 for conveyance of the particulate material ("seed" in col. 3, line 22) to the first and second metering mechanisms.

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With respect to claim 5, the troughs (portion of 29 under 26) are located in a lower apex (unnumbered) of each of the v-shaped configurations (note member 46), each of the troughs (portion of 29 under 26) having an auger 36 rotatably mounted therein for transporting the particulate material ("seed" in col. 3, line 22) along the floor (defined as being between walls 38 and 40).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Machnee or Bourgault.

Barnes shows the structure of the seeder as noted.

Claim 10 distinguishes over Barnes in requiring a fan mechanism and a pair of conveying tubes that pass at least partially internally of a container for delivering air to the metering mechanism.

Machnee shows a fan mechanism 10 (Fig. 8) and a pair of conveying tubes 16,18 (Fig. 8) that pass at least partially internally of a container 24,32 for delivering air to the metering mechanism 28,30.

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Bourgault shows a fan mechanism 1A,1B (Fig. 4) and a pair of conveying tubes 2,7 (Fig. 4) that pass at least partially internally of a container 17-19 (Fig. 1) for delivering air to the metering mechanism (col. 3, lines 18, 19, 26, 27 or "granular distribution kit" in col. 3, line 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the seeder of Barnes with the fan mechanism and conveying tubes of Machnee or Bourgault internally of the container 26 of Barnes for improved transport efficiency.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes in view of Takemoto *et al.*

Barnes shows the seeder as noted.

The claims distinguish over Barnes in requiring (1) at least one of the first and second metering mechanisms to include a sensor, and wherein initiation of said motor occurs when the sensor detects a shortage of the particulate material to be dispensed through the respective first or second metering mechanisms (as required in claim 6) and (2) each of the containers to include an optical sensor to detect a level of particulate material within the respective containers, initiation of the motor and subsequent rotation of the corresponding augers occurring when one of the optical sensors detects a decreased level of said particulate material in said container (as required in claim 7).

Takemoto *et al.* disclose (1) a sensor 281 wherein initiation of a motor 232 occurs (note col. 8, lines 31 and 32) when the sensor 281 detects a shortage (note col. 1, lines 18 and 19) of the material to be dispensed (as required in claim 6) and (2) an optical sensor 281 (note col. 11, lines 16 and 17) to detect a level of material within the respective containers, the initiation of the motor 232 (col. 8, lines 31 and 32) occurring when one of the optical sensors 281 detects a

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decreased level of material in said container (note col. 11, lines 18 and 19) (as required in claim 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the seeder of Barnes with the structure noted above of Takemoto *et al.* for greater seeder control.

***Allowable Subject Matter***

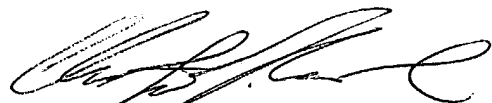
Claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Novosad whose telephone number is 703-308-2246. The examiner can normally be reached on Monday-Thursday 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher J. Novosad  
Primary Examiner  
Art Unit 3671

July 22, 2004